

WHAT IS CLAIMED IS:

1. A system for flexing a web in a cross-direction, the system comprising:  
a web handling apparatus having a web path, wherein the web path includes means  
5 for flexing the web to induce a plastic strain in the cross-direction of the web.

2. The system of claim 1, wherein the means for flexing the web includes:  
a belt assembly including first and second belts, the first belt having a first surface  
and first surface having a first line of travel and the second belt including a second surface  
10 having a second line of travel, wherein the first and second lines of travel are oriented at  
an angle with respect to one another.

3. The system of claim 2, wherein the first and second lines of travel are substantially  
perpendicular.

4. The system of claim 2, further including control means for positioning the web  
within the belt assembly.

5. A system for imparting permanent strain cross-directional in a web comprising:  
20 a web handling apparatus including first flexing assembly, the first flexing  
assembly including a first belt and a second belt and a gap therebetween; and  
a web path formed through the first flexing assembly, the web path including;  
a first portion along the first belt, a second portion along the second belt  
and a third portion in the gap between first and second belts, wherein the third  
25 portion includes a radiused segment including a radius, the radius being  
sufficiently small to impart a permanent strain in the web;

and

wherein the direction of travel of the first portion of the web path is angled with  
respect to the direction of travel of the second portion of the web path.

6. The system of claim 5, wherein the first portion of the web path is substantially  
perpendicular to the second portion of the web path.

7. The system of claim 5, further including positioning means for controlling the position of the web as it passes through the web path.

8. The system of claim 7, wherein the positioning means includes a first edge sensor for sensing the position of the web exiting the first portion and a second sensor for sensing the position of the web as it exits the second portion.

9. The system of claim 5, further wherein the gap is adjustable when the web is passing through the web path.

10. The system of claim 5, further including means for holding the web against the first and second belts.

11. The system of claim 10, wherein the means for holding is selected from the group consisting of a mechanical engagement assembly, air pressure, electrostatic pinning, adhesive or vacuum.

12. The system of claim 11, wherein the mechanical engagement assembly is a hook and loop assembly.

13. A method of flexing a web comprising:  
creating a web path, the web path including:

a first portion along a first web handling assembly, a second portion along a second web handling assembly and a third portion in a gap between first and second web handling assemblies, wherein the third portion includes a radiused segment including a radius; and

wherein the direction of travel of the first portion of the web path is substantially perpendicular to the direction of travel of the second portion of the web path;

passing a web through the webpath.